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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,191	12/20/2001	William Scott Moulton	50770	9711

7590

07/11/2003

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EXAMINER

FULLER, RODNEY EVAN

ART UNIT

PAPER NUMBER

2851

DATE MAILED: 07/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/027,191	<b>Applicant(s)</b> MOULTON ET AL.	
	<b>Examiner</b> Rodney E Fuller	<b>Art Unit</b> 2851	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: ____.                                    |

## **DETAILED ACTION**

### ***Specification***

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because the phrase "This invention comprises..." can be implied. Correction is required. See MPEP § 608.01(b).

### ***Claim Objections***

3. Claim 16 recites the limitation "The method of Claim 16" and "the dub audio track radar measurements" in lines 1-2. There is insufficient antecedent basis for these limitations in the claim. Claim 16 depends from claim 16.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 1-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Bregler (US 5,880,788).

Regarding claims 1, 15-17, 25-33 and 35, Bregler discloses “analyzing the original audio track to convert it into phonemes as a time-coded phoneme stream to identify corresponding visual facial motions of the original speaker to create frames of facial motion corresponding to speech phoneme utterance states and transformations (column 2, lines 28-36), storing these frames in a database (column 2, line 36), analyzing the second audio dub track to convert it to phonemes as a time-coded phoneme stream, using the second audio dub track time-coded phoneme stream to animate the original speaker's face (column 11, lines 9-12), synchronized to the second audio dub track to create natural continuous facial speech expression by the original speaker of the second dub audio track (column 1, 48-50).

Regarding claim 2, Bregler discloses “wherein said second audio dub track is spoken in a language different from that of the original speaker.” (column 1, lines 32-33)

Regarding claim 3, Bregler discloses “wherein said phonemes comprise diphones.” (column 4, line 41)

Regarding claim 4, Bregler discloses “wherein said phonemes comprise triphones.” (column 4, line 41)

Regarding claim 5, Bregler discloses “using a set of fixed facial reference points to track the facial transformation from one phoneme to another phoneme.” (column 1, lines 48-51)

Regarding claims 6 and 19, Bregler discloses “using a computer motion tracking system to record the optical flow path for each fixed reference point.” (column 11, line 4)

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Regarding claim 7, Bregler discloses “using a set of fixed facial reference points to track the facial transformation from one phoneme to another phoneme.” (column 1, line 14)

Regarding claim 8, Bregler discloses “accumulating a database of recorded triphone and diphone mouth transformation optical flow paths.” (column 2, line 36; column 4, line 41)

Regarding claim 9, Bregler discloses “adding an emotional elicitation process by using a computer motion tracking system to record a number of facial control points for each emotion.” (column 11, line 4)

Regarding claims 10, 20, 21 and 34, Bregler discloses wherein “the facial control points comprise the chin, outside of the mouth and inside of the lips.” (column 1, line 49)

Regarding claims 11 and 22, Bregler discloses “accumulating a database of visemes by recording the facial control points corresponding to each phoneme.” (column 2, line 36)

Regarding claim 12, Bregler discloses “accumulating a database of muzzle patches by mapping the facial control points for each viseme.” (column 2, line 36)

Regarding claim 13, 14, 23 and 24, Bregler discloses “selecting muzzle patches from the speaker's viseme database based on the second dub audio track and phoneme to viseme sequence and applying the selected muzzle patches onto a three dimensional facial muzzle model.” (column 2, lines 35-45)

Regarding claim 18, Bregler discloses “in which both audio tracks are time stamped to frames to create a database of individual frames for each phoneme.” (column 2, lines 35-36)

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***Conclusion***

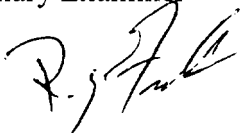
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Gaspar, et al. (US 5,630,017), Yi (US 5,502,790), Chen (US 5,608,839), Rivers (US 5,615,301) and Waters, et al. (US 5,657,426) each disclose a method / apparatus for modifying an audio visual recording originally produced with an original audio track of an original speaker, using a second audio dub track of a second speaker, to produce a new audio visual recording with synchronized audio to facial expressive speech of the second audio dub track spoken by the original speaker.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney Fuller whose telephone number is (703) 306-5641. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams, can be reached on (703) 308-2847.

Rodney Fuller  
Primary Examiner

A handwritten signature in black ink, appearing to read 'R. J. Fuller', is written over the printed name of the examiner.

June 30, 2003